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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/557,272	02/24/2006	Yoshihisa Takayama	3712174-832	8827
29175	7590	04/28/2011	EXAMINER	
K&L Gates LLP P. O. BOX 1135 CHICAGO, IL 60690			WONG, TITUS	
			ART UNIT	PAPER NUMBER
			2184	
			NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

chicago.patents@klgates.com

Office Action Summary	Application No. 10/557,272	Applicant(s) TAKAYAMA ET AL.
	Examiner TITUS WONG	Art Unit 2184

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| <p>1) <input type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
|---|--|

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 9, 2011 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gehrmann US Patent No. 7,216,231 B2 (hereinafter Gehrmann) in view of Saito et al. US Publication No. 2003/0093542 A1 (hereinafter Saito).

Referring to claim 7, Gehrmann discloses, a communication system having a plurality of communication apparatuses (201 and 211 Fig. 2a), each of the plurality of first communication apparatuses comprising:

first communication means (First is WAP utilizing WTLS, column 4, lines 33-40 and Fig. 3b), for executing a communication between each communication apparatus and a second communication apparatus (216, Fig. 2a) by a first communication protocol (column 2, lines 62-65),

acquisition means for, before (a) requesting usability of at least one communication protocol from the second communication apparatus (secure WTLS handshake, column 10, lines 55-60), the usability being: (i) sent to the at least one communication apparatus from the second communication apparatus (initialize connection between user device and service device, see Col. 10, lines 15-25 and 55-63); and (ii) indicative of a second communication protocol which is available by the second communication apparatus (identification keys are linked to Bluetooth, see Col. 4, lines 2-11 and note Col. 10, lines 46-53); and (b) acquiring protocol information of a second communication protocol which is available by the second communication apparatus (BD_ADDR, column 10, lines 65-67 and column 11, lines 1-2), acquiring using the first communication, identification information (first identification key, column 2, lines 62-63).

exchange means (PIN value is exchanged by WTLS on WAP, column 10, lines 22-29) for exchanging communication information (first identification key, column 2, lines 62-63) necessary to a second communication executed using the second

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communication protocol (Bluetooth, column 13, line 20) between each first communication apparatus and the second communication apparatus by the first communication executed by the first communication protocol (the exchange is performed using a first communication protocol, column 62-63);

switching means (Bluetooth pairing, column 13, lines 30-33) for switching the first communication between each communication apparatus and the other communication apparatus from the communication executed by the first communication protocol to the second communication executed by the second communication protocol (a Bluetooth connection is established once initial key and security information are exchanged via the first communication protocol, Fig. 3b, column 11, lines 50-55); and

second communication means (Bluetooth, Fig. 3b) for executing the second communication by the second communication protocol between each first communication apparatus and the other communication apparatus based on the communication information exchanged by the exchange means (column 4, lines 5-12).

It is noted that Gehrmann does not appear to explicitly disclose, information formed by a random number of the second communication apparatus.

However, Saito discloses information formed by a random number of the second communication apparatus (instead of using the node ID of its own address, a generated random number maybe used, page 6 paragraph 0080, lines 1-6).

Saito and Gehrmann are from the same field of endeavor, specifically, they both deal with establishing communications in a Bluetooth environment.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize the random number generated in Saito as the key in Gehrman.

The suggestion/motivation for doing so is apparent in Saito, at page 6 paragraph 0090, lines 1-8, where it states that in the event that a device cannot determine the other existing devices on the network, such as in a bad radio environment, a random address is selected in order to prevent address overlap.

Therefore it would have been obvious to combine Gehrman and Saito to obtain the invention as described in the instant claim.

Referring to claim 8, Gehrman discloses, a communication apparatus, comprising:

first communication means (First is WAP utilizing WTLS, column 4, lines 33-40 and Fig. 3b) for executing a first communication between the communication apparatus and another communication apparatus by a first communication protocol (column 2, lines 62-65);

acquisition means (PIN value is exchanged by WTLS on WAP, column 10, lines 22-29) for acquiring identification information (first identification key, column 2, lines 62-63) of the another communication apparatus by the first communication executed by the first communication protocol before (a) requesting usability of at least one communication protocol, the usability being: (i) sent to the at least one communication apparatus from the another communication apparatus (initialize connection between user device and service device, see Col. 10, lines 15-25 and 55-63); and (ii) indicative

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of a second communication protocol which is available by the another communication apparatus (identification keys are linked to Bluetooth, see Col. 4, lines 2-11 and note Col. 10, lines 46-53); and (b) acquiring protocol information of a second communication protocol (Bluetooth, Fig. 3b) which is available by the another communication apparatus through the first communication executed by the first communication protocol (the first identification key is exchanged to secure the connection before Bluetooth addresses exchange and pairing, Fig. 3b);

exchange means (PIN value is exchanged by WTLS on WAP, column 10, lines 22-29) for exchanging communication information necessary to a communication executed using the second communication protocol (Bluetooth address information is exchanged prior to Bluetooth Pairing, Fig. 3b) between the communication apparatus and the another communication apparatus by the first communication executed using the first communication protocol (column 2, lines 62-65);

switching means (Bluetooth pairing, column 13, lines 30-33) for switching the first communication between the communication apparatus and the another communication apparatus from the first communication executed by the first communication protocol to the second communication executed using the second communication protocol (a Bluetooth connection is established once initial key and security information are exchanged via the first communication protocol, Fig. 3b, column 11, lines 50-55); and

second communication means (Bluetooth, Fig. 3b) for executing the second communication by the second communication protocol between the communication

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apparatus and the other communication apparatus based on the communication information exchanged by the exchange means (column 4, lines 5-12).

It is noted that Gehrman does not appear to explicitly disclose, formed by a random number of the another communication apparatus.

However, Saito discloses formed by a random number of the another communication apparatus (instead of using the node ID of its own address, a generated random number maybe used, page 6 paragraph 0080, lines 1-6).

Saito and Gehrman are from the same field of endeavor, specifically, they both deal with establishing communications in a Bluetooth environment.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize the random number generated in Saito as the key in Gehrman.

The suggestion/motivation for doing so is apparent in Saito, where it states that in the event that a device cannot determine the other existing devices on the network, such as in a bad radio environment, a random address is selected in order to prevent address overlap.

Therefore it would have been obvious to combine Gehrman and Saito to obtain the invention as described in the instant claim.

As per claim 9, Gehrman discloses, the first communication executed by the first communication protocol and the second communication executed by the second communication protocol include wireless communication (First is WAP utilizing WTLS and the second is Bluetooth, column 4, lines 33-40 and Fig. 3b), and, when the another

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communication apparatus is located in the vicinity of the communication apparatus, the first communication means executes the first communication by the first communication protocol between the communication apparatus and the another communication apparatus (column 8, lines 47-55).

As per claim 10, Gehrmann discloses, the first communication is executed by specifying the another communication apparatus, located in the vicinity of the communication apparatus (column 8, lines 47-55).

Referring to claim 11, corresponding limitations as in claim 8 are recited. Therefore the rejection of claim 8 applies to claim 11.

Referring to claim 12, corresponding limitations as in claim 8 are recited. Therefore the rejection of claim 8 applies to claim 12.

Referring to claim 13, corresponding limitations as in claim 8 are recited. Therefore the rejection of claim 8 applies to claim 13.

As per claim 15, Gehrmann discloses, the acquisition unit repeatedly executes polling for requesting identification information until a response is received (column 8, lines 47-51).

As per claim 16, Gehrmann discloses, a transaction ID and a transaction key are exchanged with the second communication apparatus for mutual authentication (Fig. 5b), through the communication using the first communication protocol, wherein mutual authentication occurs after acquiring the identification information and before acquiring the setting information (the first identification key is exchanged to secure the connection before Bluetooth addresses exchange and pairing, Fig. 3b).

As per claim 17, the communication apparatus is a first mobile apparatus and the second communication apparatus is a second mobile apparatus (column 9, lines 15-20).

Referring to claim 18, a communication apparatus comprising: a processor (microprocessor 204, see Col. 9, lines 20 and 21 and Fig. 2a); a memory device (memory unit 205, see Col. 9, lines 22-35 and Fig. 2a) storing instructions which when executed by the processor, cause the processor to: (a) using a first communication protocol (column 2, lines 62-65), execute a first communication between the communication apparatus and another communication apparatus (First is WAP utilizing WTLS, column 4, lines 33-40 and Fig. 3b); (b) using the first communication, acquire (PIN value is exchanged by WTLS on WAP, column 10, lines 22-29) the identification information (first identification key, column 2, lines 62-63) before: (i) the communication apparatus requests usability of at least one communication protocol, the requested usability being: (A) sent to the communication apparatus from the another communication apparatus (initialize connection between user device and service

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device, see Col. 10, lines 15-25 and 55-63); and (B) indicative of a second communication protocol which is available by the another communication apparatus (identification keys are linked to Bluetooth, see Col. 4, lines 2-11 and note Col. 10, lines 46-53); and (ii) the communication apparatus acquires protocol information of the second communication protocol (the first identification key is exchanged to secure the connection before Bluetooth addresses exchange and pairing, Fig. 3b); (c) using the first communication, exchange (PIN value is exchanged by WTLS on WAP, column 10, lines 22-29) communication information necessary to a second communication executed using the second communication protocol (Bluetooth address information is exchanged prior to Bluetooth Pairing, Fig. 3b) between the communication apparatus and the another communication apparatus (column 2, lines 62-65); (d) switch (Bluetooth pairing, column 13, lines 30-33) the first communication between the communication apparatus and the another communication apparatus from the first communication executed by the first communication protocol to the second communication executed using the second communication protocol (a Bluetooth connection is established once initial key and security information are exchanged via the first communication protocol, Fig. 3b, column 11, lines 50-55); and (e) execute the second communication by the second communication protocol (Bluetooth, Fig. 3b) between the communication apparatus and the another communication apparatus based on the exchanged communication information (column 4, lines 5-12).

It is noted that Gehrman does not appear to explicitly disclose, formed by a random number of the another communication apparatus.

However, Saito discloses formed by a random number of the another communication apparatus (instead of using the node ID of its own address, a generated random number maybe used, page 6 paragraph 0080, lines 1-6).

Saito and Gehrmann are from the same field of endeavor, specifically, they both deal with establishing communications in a Bluetooth environment.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize the random number generated in Saito as the key in Gehrmann.

The suggestion/motivation for doing so is apparent in Saito, where it states that in the event that a device cannot determine the other existing devices on the network, such as in a bad radio environment, a random address is selected in order to prevent address overlap.

Therefore it would have been obvious to combine Gehrmann and Saito to obtain the invention as described in the instant claim.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gehrmann in view of Saito as applied to claim 13 above, further in view of Nolan et al. US Publication No. 2004/0193402 A1 (hereinafter Nolan).

As per claim 14, it is noted that Gehrmann does not appear to explicitly disclose, the first communication protocol is NFCIP-1.

However, Nolan discloses, wherein the first communication protocol is NFCIP-1 (the wireless standard may be NFCIP-1).

Nolan and Gehrmann are from the same field of endeavor; specifically they both deal with transmitting data from mobile units utilizing short range radio frequency communications.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize NFC as the communication for the shorter range radio link.

The suggestion/motivation for doing so would have been that near field communications are ideal for and widely used as part of the initialization of a Bluetooth pairing because of the shorter initialization time as compared to Bluetooth.

Response to Arguments

Applicant's arguments filed on 3/9/2011 have been fully considered but they are not persuasive.

Applicants argued that “Gehrmann and Saito does not teach acquisition means for, before: (a) requesting usability of at least one communication protocol from the second communication apparatus, the usability being: (i) sent to the at least one communication apparatus from the second communication apparatus; and (ii) indicative of a second communication protocol which is available by the second communication apparatus” (Page 12, 1st para. of Amendment)

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Examiner does not agree with Applicants. As set forth in the art rejections, Gehrmann in view of Saito discloses acquisition means for, before (a) requesting usability of at least one communication protocol from the second communication apparatus (secure WTLS handshake, column 10, lines 55-60), the usability being: (i) sent to the at least one communication apparatus from the second communication apparatus (initialize connection between user device and service device, see Col. 10, lines 15-25 and 55-63); and (ii) indicative of a second communication protocol which is available by the second communication apparatus (identification keys are linked to Bluetooth, see Col. 4, lines 2-11 and note Col. 10, lines 46-53). A Bluetooth address is provided along with a PIN/key, effectively informing the device that Bluetooth is an available protocol and providing the information necessary to establish a Bluetooth connection. See column 10, lines 55-67 and column 11, lines 1-10. Also, the identification keys that are exchanged during establishing of a connection are indicative of the Bluetooth protocol as suggested by Gehrmann in Col. 4, lines 2-11.

In summary, Gehrmann, Saito, and Nolan teach the claimed limitations as set forth.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Titus Wong whose telephone number is (571) 270-1627. The examiner can normally be reached on Monday-Friday, 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai can be reached on (571) 272-4176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TW

/Henry W.H. Tsai/
Supervisory Patent Examiner, Art Unit 2184